

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A vacuum apparatus comprising:
a vacuum container having a gas inlet and a gas outlet;
a high vacuum pump connected to said gas outlet of said vacuum container, wherein said high vacuum pump is configured to operate in a molecular flow region and depressurize the inside of said vacuum container or maintain the inside of said vacuum container in a depressurized state;
a vacuum pump of at least one stage connected to a gas outlet of said high vacuum pump; and
a compressor connected to a discharge port of [[the]] a last-stage vacuum pump of said at least one-stage vacuum pump without divergence, wherein said compressor is configured to aspirate all of gases from the last-stage vacuum pump and depressurize an input side of said compressor;
wherein during operation the last-stage vacuum pump has an inlet pressure of 10 Torr or less.
2. (Original) A vacuum apparatus according to claim 1, wherein the number of vacuum pump stages is set to one stage or a plurality of stages depending on a gas amount introduced into said vacuum container.
3. (Original) A vacuum apparatus according to claim 1, wherein the number of vacuum pump stages is set to the plurality of stages.
4. (Previously Presented) A vacuum apparatus according to any one of claims 1 to 3, further comprising a gas recovery apparatus configured to recover a gas discharged from said last-stage vacuum pump for re-use of said gas, wherein said compressor serves as said gas recovery apparatus.

5. (Currently Amended) A vacuum apparatus comprising:
a vacuum container to be depressurized having a gas inlet and a gas outlet;
a high vacuum pump connected to said gas outlet of said vacuum container, wherein said high vacuum pump is configured to operate in a molecular flow region and depressurize the inside of said vacuum container or maintain the inside of said vacuum container in a depressurized state;
vacuum pumps of a plurality of stages connected to said high vacuum pump; and
a gas recovery apparatus configured to recover a gas discharged from [[the]] a last-stage vacuum pump of said vacuum pumps for re-use of said gas;
wherein:
said vacuum apparatus further comprises a gas recovery compressor, connected to a discharge port of said last-stage vacuum pump without divergence, wherein said compressor is configured to aspirate all of gases from the last-stage vacuum pump and assist a depressurization operation of said last-stage vacuum pump and suppressing back diffusion from said discharge port, and
said gas recovery compressor serves as said gas recovery apparatus;
wherein during operation the last-stage vacuum pump has an inlet pressure of 10 Torr or less.

6. (Cancelled).

7. (Currently Amended) A vacuum apparatus comprising:
a container to be depressurized having a gas inlet and a gas outlet;
a first vacuum pump configured to operate in a molecular flow region and maintain the inside of said container to be depressurized;
a second vacuum pump connected at a subsequent stage of said first vacuum pump;
a third vacuum pump connected at a subsequent stage of said second vacuum pump;
and
a compressor connected to said third vacuum pump without divergence, wherein the compressor is configured to aspirate all of gases from the third vacuum pump;

wherein during operation said third vacuum pump has an inlet pressure of 10 Torr or less.

8. (Original) A vacuum apparatus according to claim 7, wherein said first vacuum pump is a turbomolecular pump or a thread groove pump, and said second vacuum pump is a booster pump, said third vacuum pump being a dry pump.

9. (Previously Presented) A vacuum apparatus according to claim 7 or 8, further comprising a gas recovery apparatus configured to recover a gas discharged from said third vacuum pump for re-use of said gas, wherein said compressor serves as said gas recovery apparatus.

10. (Currently Amended) A vacuum apparatus comprising:
a container to be depressurized having a gas inlet and a gas outlet and introduced with a gas in a supply amount smaller than a predetermined amount;
a first vacuum pump configured to operate in a molecular flow region and maintain the inside of said container to be depressurized;
a second vacuum pump connected at a subsequent stage of said first vacuum pump;
and
a compressor connected to said second vacuum pump without divergence, wherein the compressor is configured to aspirate all of gases from the second vacuum pump;
wherein during operation the second vacuum pump has an inlet pressure of 10 Torr or less.

11. (Original) A vacuum apparatus according to claim 10, wherein said first vacuum pump is a turbomolecular pump or a thread groove pump, and said second vacuum pump is a booster pump.

12. (Previously Presented) A vacuum apparatus according to claim 10 or 11, further comprising a gas recovery apparatus configured to recover a gas discharged from said

second vacuum pump for re-use of said gas, wherein said compressor serves as said gas recovery apparatus.

13. (Previously Presented) A vacuum apparatus according to any one of claims 1, 5, 7 or 10, wherein the vacuum pump connected to said compressor is a screw pump.

14. (Cancelled).